INTERNATIONALSEARCHREPORT

International application No. PCT/JP2005/004390

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl. H01L33/00, H01S5/323

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl. H01L33/00, H01S5/00-5/50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Published examined utility model applications of Japan 1922-1996

Published unexamined utility model applications of Japan 1971-2005

Registered utility model specifications of Japan 1996-2005

Published registered utility model applications of Japan 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2002-223042 A (NICHIA CORPORATION) 2002.08.09, Fig.1-9, [0014], [0019], [0039], [0081]-[0107] & JP 2003-124577 A & JP 2004-104157 A & US 2002/0053676 A1 & US 2003/0205736 A1 & EP 1313187 A1 & WO 2002/005399 A1 & AU 6945901 A & CA 2415056 A & CN 1440579 T	1,4 2,3
Y	JP 07-086637 A (TOSHIBA CORPORATION) 1995.03.31, Fig.3,[0027]-[0029](Family: none)	2
Y	JP 2001-102629 A (NICHIA CORPORATION) 2001.04.13, Fig.1,2,[0025]-[0042] (Family: none)	3

(ran	irra: none)				
Further documents are listed in the continuation of Box C. See patent family annex.					
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance			understand the principle or theory underlying the invention		
"E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other		Λ.	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone		
special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means		"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art			
"P" document publish than the priority d	ned prior to the international filing date but later attended	u Szn	document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report			
18.05.2005			07. 6. 2005		
Name and mailing address of the ISA/JP		Aut	horized officer	2K 3412	
Japan Patent Office		Ka	zuyo KADOTA		
3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan			Telephone No. +81-3-3581-1101 Ext. 3255		

INTERNATIONALSEARCHREPORT

International application No. PCT/JP2005/004390

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT							
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.					
Y	JP 2000-332364 A (MATSUSHITA ELECTRIC INDUSTRIAL CO.,LTD) 2000.11.30, Fig.1,2,[0016]-[0023] (Family: none)						
-							
		•					
		•					
		, i					
	• •	·					
	· · · · · · · · · · · · · · · · · · ·						
,							
	•						
	•						
		•					